

IN THE CLAIMS

This listing of the claims replaces all prior versions of the claims in the application.

1. (Withdrawn) An isolated polypeptide selected from the group consisting of:
 - a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5,
 - b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5,
 - c) a biologically active fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5, and
 - d) an immunogenic fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5.

2.-10. (Canceled)

11. (Currently Amended) An isolated antibody which specifically binds to a polypeptide selected from the group consisting of:
 - a) a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] and ~~SEQ ID NO:5,~~
 - b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] and ~~SEQ ID NO:5,~~ wherein the polypeptide has carboxypeptidase activity,
 - c) a fragment of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] and ~~SEQ ID NO:5,~~ wherein the fragment has carboxypeptidase activity, and
 - d) an immunogenic fragment ~~comprising~~ consisting of at least 15 contiguous amino acid residues of a polypeptide having an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] and ~~SEQ ID NO:5.~~

12.-30. (Canceled)

31. (Original) The antibody of claim 11, wherein the antibody is:

- a) a chimeric antibody,
- b) a single chain antibody,
- c) a Fab fragment,
- d) a F(ab')₂ fragment, or
- e) a humanized antibody.

32. (Original) A composition comprising an antibody of claim 11 and an acceptable excipient.

33. (Canceled)

34. (Previously Presented) A composition of claim 32, further comprising a label.

35. (Canceled)

36. (Currently Amended) A method of preparing a polyclonal antibody with the specificity of the antibody of claim 11, the method comprising:

- a) immunizing an animal with a polypeptide consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:1[,]and SEQ ID NO:3[,]and ~~SEQ ID NO:5~~, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibodies from said animal, and
- c) screening the isolated antibodies with the polypeptide, thereby identifying a polyclonal antibody which specifically binds to a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1[,]and SEQ ID NO:3[,]and ~~SEQ ID NO:5~~.

37. (Original) A polyclonal antibody produced by a method of claim 36.

38. (Original) A composition comprising the polyclonal antibody of claim 37 and a suitable carrier.

39. (Currently Amended) A method of making a monoclonal antibody with the specificity of the antibody of claim 11, the method comprising:

- a) immunizing an animal with a polypeptide consisting of an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] ~~and SEQ ID NO:5~~, or an immunogenic fragment thereof, under conditions to elicit an antibody response,
- b) isolating antibody producing cells from the animal,
- c) fusing the antibody producing cells with immortalized cells to form monoclonal antibody-producing hybridoma cells,
- d) culturing the hybridoma cells, and
- e) isolating from the culture monoclonal antibody which specifically binds to a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] ~~and SEQ ID NO:5~~.

40. (Original) A monoclonal antibody produced by a method of claim 39.

41. (Original) A composition comprising the monoclonal antibody of claim 40 and a suitable carrier.

42. (Currently Amended) The antibody of claim 11, wherein the antibody is ~~produced~~ identified by screening a Fab expression library.

43. (Currently Amended) The antibody of claim 11, wherein the antibody is ~~produced~~ identified by screening a recombinant immunoglobulin library.

44. (Withdrawn) A method of detecting a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5 in a sample, the method comprising:

- a) incubating the antibody of claim 11 with a sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) detecting specific binding, wherein specific binding indicates the presence of a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5 in the sample.

45. (Withdrawn) A method of purifying a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5 from a sample, the method comprising:

- a) incubating the antibody of claim 11 with a sample under conditions to allow specific binding of the antibody and the polypeptide, and
- b) separating the antibody from the sample and obtaining the purified polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3, and SEQ ID NO:5.

46.-61. (Canceled)

62. (Currently Amended) An isolated antibody which specifically binds to a polypeptide comprising an amino acid sequence selected from the group consisting of SEQ ID NO:1[[,]] and SEQ ID NO:3[[,]] and ~~SEQ ID NO:5.~~

63. (Previously Presented) An isolated antibody of claim 62, which specifically binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:1.

64. (Previously Presented) An isolated antibody of claim 62, which specifically binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:3.

65. (Previously Presented) An isolated antibody of claim 11 which specifically binds to a polypeptide selected from the group consisting of:

- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:1, and
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:1, wherein the polypeptide has carboxypeptidase activity.

66. (Previously Presented) An isolated antibody of claim 11 which specifically binds to a polypeptide selected from the group consisting of:

- a) a polypeptide comprising the amino acid sequence of SEQ ID NO:3, and
- b) a polypeptide comprising a naturally occurring amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:3, wherein the polypeptide has carboxypeptidase activity.